

WHAT IS CLAIMED IS:

1. A surgical device for enclosing an intact organ to perform a surgical procedure thereon, the device comprising:

an expandable structure having a collapsed configuration and an expanded configuration;

a membrane attached to the expandable structure; and

at least one port in the membrane adapted to allow a surgical instrument to pass therethrough to operate on the intact organ.

2. The surgical device of Claim 1, wherein the membrane attached to the expandable structure is substantially funnel-shaped when the expandable structure is in its expanded configuration.

3. The surgical device of Claim 1, wherein the intact organ is a live intact organ.

4. The surgical device of Claim 3, wherein the intact organ is an ovary.

5. The surgical device of Claim 1, wherein the membrane is adapted to be closed over a pedicle of the intact organ.

6. The surgical device of Claim 1, wherein the expandable structure is self-expanding.

7. The surgical device of Claim 6, wherein the expandable structure comprises a plurality of self-expanding struts.

8. A surgical device for enclosing an intact organ to perform a surgical procedure thereon, comprising:

an expandable structure comprising a plurality of struts;

a membrane attached to the struts, having an opening at a distal end thereof sufficiently large to receive the intact organ and an attachment point at a proximal end thereof adapted to manipulate and retrieve the expandable structure; and

at least one port to allow a surgical instrument to be introduced into the expandable structure to perform a surgical operation on the intact organ contained within the expandable structure.

9. The surgical device of claim 8, wherein the struts comprise spring-loaded metal prongs.

10. The surgical device of claim 8, wherein the attachment point is a flexible loop.
11. The surgical device of Claim 8, wherein the intact organ is a live intact organ.
12. The surgical device of Claim 8, wherein the intact organ is an ovary.
13. The surgical device of Claim 8, further comprising a drawstring near the opening to close the opening.
14. The surgical device of Claim 8, wherein the opening at the distal end comprises a noose-like opening.
15. The surgical device of Claim 8, further comprising an insertion housing for enclosing the expandable structure.
16. The surgical device of Claim 8, comprising a plurality of ports to allow surgical instruments to be introduced into the expandable structure.
17. The surgical device of Claim 8, wherein the struts are self-expanding.
18. A method of performing a cystectomy, comprising:
 - introducing an expandable structure comprising a frame attached to a membrane capable of having a collapsed configuration and an expanded configuration into an abdominal cavity of a patient;
 - expanding the frame attached to the membrane to the expanded configuration to provide an opening at the distal end of the frame sufficiently large to encapsulate an ovary which is attached to the body;
 - positioning the frame over the ovary to encapsulate the ovary;
 - closing the opening of the expandable structure over an ovarian pedicle; and
 - introducing one or more instruments into the expandable structure to separate a cyst from the encapsulated ovary.
19. The method of Claim 18, further comprising removing the expandable structure from the ovarian pedicle and releasing the ovary from the expandable structure.
20. The method of Claim 18, further comprising re-closing the opening of the expandable structure with the ovary outside the expandable structure and with the removed cyst inside the expandable structure.
21. The method of Claim 20, further comprising transporting the separated cyst outside of the abdominal cavity within the expandable structure.

22. The method of Claim 18, wherein introducing the expandable structure into the abdominal cavity comprises inserting the expandable structure into the abdominal cavity within an insertion housing.

23. The method of Claim 18, wherein the expandable structure is opened sufficiently to allow for the performance of the cystectomy inside the expandable structure.

24. The method of Claim 18, wherein closing the opening of the expandable structure over the pedicle comprises pulling a drawstring closed over the ovarian pedicle.

25. The method of Claim 18, wherein introducing one or more instruments into the expandable structure comprises inserting said instruments through ports in a surface of the membrane.

26. A surgical device for performing a surgical procedure, comprising:

an expandable structure comprising a plurality of struts; and

a membrane attached to the struts, having an opening at a distal end thereof and an attachment point at a proximal end thereof adapted to manipulate and retrieve the expandable structure,

wherein the expandable structure in an expanded configuration forms a bowl to collect leakage from the surgical procedure.

27. The surgical device of claim 26, wherein the struts comprise spring-loaded metal prongs.

28. The surgical device of claim 26, wherein the attachment point is a flexible loop.

29. The surgical device of Claim 26, further comprising an insertion housing for enclosing the expandable structure.

30. The surgical device of Claim 26, wherein the struts are self-expanding.

31. A method of performing a cystectomy, comprising:

introducing an expandable structure capable of having a collapsed configuration and an expanded configuration into an abdominal cavity of a patient;

expanding the frame attached to the membrane to the expanded configuration to provide a bowl;

positioning the bowl underneath an ovary to collect leakage from the cystectomy;

separating a cyst from the ovary; and

suctioning the leakage from the bowl.

32. The method of Claim 31, wherein introducing the expandable structure into the abdominal cavity comprises inserting the expandable structure into the abdominal cavity within an insertion housing.

33. The method of claim 31, wherein the expandable structure comprises a frame attached to a membrane.